

CITY OF BIRMINGHAM **TOWN HALL**

Thursday, April 21

In person at Boutwell Auditorium
5:30 p.m.

Join Mayor Randall L. Woodfin for a discussion
about flooding in the City of Birmingham.

Town hall meeting will also be live streamed
on the City of Birmingham's Facebook page.



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To view tonight's Town Hall
Power Point, please visit
www.birminghamal.gov/townhall.



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STORMWATER MANAGEMENT: CHALLENGES AND OPPORTUNITIES

City of Birmingham

Presented by:

Katrina Thomas, Director of Planning, Engineering &
Permits

And

Denise Bell, Director of Capital Projects

April 21, 2022



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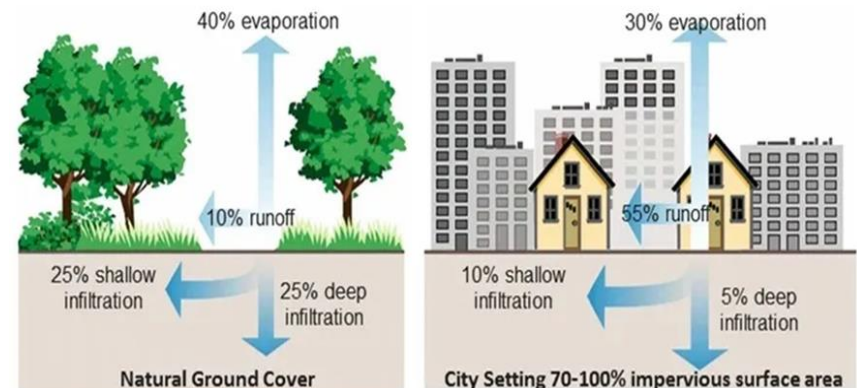
STORMWATER INFRASTRUCTURE

The Stormwater infrastructure function is to move urban stormwater away from the built environment.

This “gray” infrastructure includes curbs, gutters, drains, piping and collection systems – Understanding Magnitude is Key.

- 27,000 storm sewer inlets
- 2,000 miles of storm sewer pipes
- 55 miles of creeks
- Over 7,000 acres of floodplains

NATURAL vs. URBAN STORMWATER DRAINAGE



Stormwater infiltrates into the ground
Plants and trees work to absorb stormwater

Water hits impervious surface and runs off roofs, streets, parking lots etc.
Runoff goes into the sewers



EXISTING CHALLENGES

- Geographic location / Overall city topography
- INCREASED DEVELOPMENT-MORE PAVEMENT FOR RUNOFF- WATER HAS NOWHERE TO GO-SPEED OF STORMWATER RUNOFF IS GREATLY INCREASED
- CLIMATE CHANGE-MORE FREQUENT RAIN EVENTS
- LARGE AMOUNTS OF RAIN AND HEAVY STORMS OVERWHELMS EXISTING INFRASTRUCTURE WHICH CAN CREATE FREQUENT FLOODING EVENTS
- WATER FLOWING THROUGH PIPES FOR DECADES CAN SLOWLY ERODE THE PIPES, Contributing to DETERIORATION
- LACK Of GREEN INFRASTRUCTURE PRACTICES
- Long-term solution needed – managing expectations



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CURRENT ASSESSMENT PROCESS

Intake

Assessment

Potential Project
Solution/Modeling

Identify funding

Design, bid,
construct



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The City of Birmingham has compiled a list of at least 100 drainage repair needs/complaints, totaling \$32 million

There are 327 storm requests per month

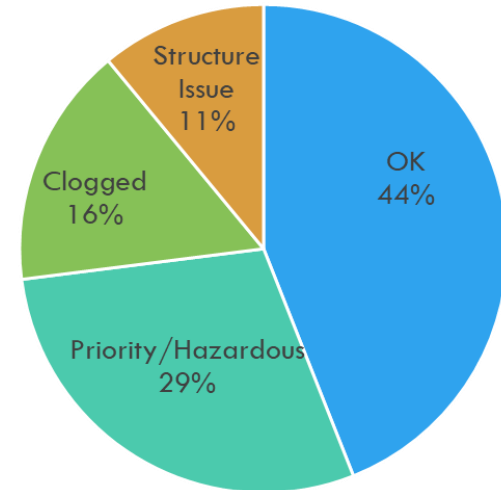
On average, the City receives 16 calls per day for response



EXISTING DATA

- Initiated Project in Spring 2020
- Watershed Management Team started Assessing and Mapping City Storm Drains
- Expected completion date for inlet assessment is December 2022
- Currently Discussing Options with Consultants to connect Inlets to Outfalls

76/99 Neighborhood Completed (18,737 inlets assessed)





NEXT STEPS STRATEGY

- Finish mapping and assessing remaining neighborhoods – including inlets to outfalls
- Develop full geometric network of all inlets, pipe size/capacity, material and condition
- Develop routine maintenance plan & schedule
- Create asset database system
- Develop infrastructure improvement plan
- Improve Interdepartmental communication
- Better transparency
- Improve repair logistics
- Improve water quality with Certain compliance Rules





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FUNDING FOR ACTIVE CAPITAL DRAINAGE PROJECTS CURRENTLY UNDERWAY

COST: MORE THAN \$3 MILLION



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FUNDING FOR EMERGENCY CAPITAL PROJECTS CURRENTLY UNDERWAY

COST: \$866,600



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COMPLETED CAPITAL PROJECTS

COMPLETED CULVERT / STORM SEWER PROJECTS

- 6th Avenue South Drainage Project
- 112 Avenue T (Pratt City) – Storm Sewer Replacement
- Calico Winewood Culvert Extension Phase II
- Gillespie Rd – Culvert Replacement
- Lane Park Road Culvert Replacement

COMPLETED DRAINAGE

- 9th Avenue North & 31st Street Drainage Improvements
- 901 Bankhead Highway Storm Drainage
- 12th St. S & 1st Ave. S Drainage Improvements
- Border Street Drainage Improvements
- Calico Circle at Five Mile Rd - Drainage Improvements
- Candle Lane Drainage Improvements
- Church Street Bridge Drainage Improvements



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PATH FORWARD: OUR LONG-TERM STRATEGY

- Improve water quality
- Decrease localized flooding
- Reduce sedimentation loads
- Maintain and improve infrastructure
- Develop smart sustainable systems
- Increase social economics and environmental health
- Improve low-impact development & green infrastructure
- Designate emergency funding for capital projects
- Leverage funding opportunities (i.e. repaving projects should address some drainage needs)
- Public outreach education and information
- Improve quality of life for citizens



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QUESTIONS?

For more information, please visit
www.birminghamal.gov/townhall